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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/540,396

09/21/2005

Ramon Guimil

2923-718

2756

6449

7590

05/18/2009

ROTHWELL, FIGG, ERNST & MANBECK, P.C.

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SUITE 800

WASHINGTON, DC 20005

EXAMINER

GROSS, CHRISTOPHER M

ART UNIT

PAPER NUMBER

1639

NOTIFICATION DATE

DELIVERY MODE

05/18/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

Office Action Summary	Application No. 10/540,396	Applicant(s) GUIMIL ET AL.	
	Examiner CHRISTOPHER M. GROSS	Art Unit 1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 6-9 and 22-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10-21, 27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Responsive to communications entered 12/22/2008 Claims 1-27 are pending. Claims 6-9,22-26 are withdrawn. Claims 1-5,10-21,27 are examined herein.

Priority

The present application filed 9/21/2005 is a 371 of PCT/EP03/14822 filed 12/23/2003.

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) to German patents 102 60 591.2 (filed 12/23/2002) and 102 60 592.0 (filed 12/23/2002). Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Applicant has perfected priority to German patent 102 60 591.2 by furnishing a certified English translation.

Withdrawn Objection(s) and/or Rejection(s)

The rejection of claims 1-5,10-21 under 35 U.S.C. 102(a) as being anticipated by **Guimil et al** (WO 03/004510) is hereby withdrawn in view of applicant's perfection of foreign priority.

The rejection of claims 1-5,10-21 under 35 U.S.C. 102(e) as being anticipated by **Guimil et al** (US Patent Application 2004/0197851) is hereby withdrawn in view of applicant's persuasive arguments.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3,10-12,14-21,27 are rejected under 35 U.S.C. 102(b) as being anticipated by **Beier** (WO 02/062815 – IDS entry 6/5/2007) as evidenced by Guimil et al IV (WO 04/058392)

The following rejection is based on an oral translation of Beier and Guimil et al IV provided to the examiner by the Scientific and Technical Information Center at the USPTO on 4/2/2009. A full translation of each document will follow this action under separate cover.

The claimed subject matter per claim 1 is drawn to a process for synthesizing biopolymers by stepwise assembly from synthesis building blocks which carry protective groups, where at least one synthesis building block which carries a two-stage protective group is used, where the two-stage protective group is activated by an illumination step and eliminated by a subsequent chemical treatment step, characterized in that the activation takes place by elimination of a photoactivatable protective group which is selected from triplet-sensitized photoactivatable groups, labeled photoactivatable groups and triplet-sensitized and labeled photoactivatable groups

Claims 2-3,10-12,14-21,27 represent variations thereof.

Beier teaches, throughout the document and especially the abstract, photo-labile hybrid protecting groups for light controlled synthesis of biopolymers such as nucleic acids.

In figure 3 of Beier teaches a process for synthesizing biopolymers by stepwise assembly from synthesis building blocks which carry protective groups, where at least one synthesis building block carries a two-stage protective group is used, as set forth in claim 1. In figure 3, Beier teaches a two stage deprotection activated by light before or after removal of the Fmoc protecting group by base (chemical treatment), reading on claim 1. Beier et al teach on p 4 various pigments and fluorescent groups, providing the labeled photoactivatable group of claims 1 and 12. Furthermore, evidence provided by Guimil et al IV in the paragraph bridging pp 2-3 indicates the nitrophenyl group shown in figure 3 of Beier inherently constitutes a triplet-sensitized photoactivatable group, further reading on claim 1.

Beier et al also teach on p 4 second paragraph, alternative embodiments regarding the chemical treatments including acid, base, oxidations, reductions and enzymes, reading on claims 2,3 and 27.

Said Fmoc is inherently a fluorescent label, which in concert with said pigments provides a plurality of labeling groups which can be detected independently of one another, as set forth in claim 10 and further reads on claim 12.

Giving the claims the broadest reasonable interpretation, a label may be as simple as chemical change detectable by NMR and in this vein, Beier teaches in

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formula (I) p 3 various hydrogen or carbon atoms whose chemical shift would change upon deprotection, therein linked labels of claim 11.

Said nucleic acid biopolymers read on claims 14-15.

In figure 2, Beier teach phosphoramidite building blocks with said hybrid protecting group on the 5' O atom, reading on claims 16,17 and 18.

Beier et al discuss on p 1, the invention concerns DNA microarrays, which are made by light directed location based solid phase synthesis, reading on claim 19. DNA microarrays inherently have different sequences at different locations, reading on claim 20.

Beier et al teach on p 2 said hybrid protecting groups are useful for making quality DNA microarrays, which reads on claim 21.

New Claim Rejection(s) – 35 USC § 112

The following is a quotation of the **first** paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This rejection concerns “new matter.”

This rejection is necessitated by Applicant's amendment to the claims.

Claim 2 has been amended to add combinations of chemical treatments, such as acid and base.

The specification as originally filed provided no implicit or explicit support for said combinations.

Applicants are reminded that it is their burden to show where the specification supports any amendments to the disclosure. See MPEP 714.02, paragraph 5, last sentence and also MPEP 2163.06 I.

MPEP 2163.06 notes “If new matter is added to the claims, the examiner should reject the claims under 35 U.S.C. 112, first paragraph - written description requirement. *In re Rasmussen*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981).” MPEP 2163.02 teaches that “Whenever the issue arises, the fundamental factual inquiry is whether a claim defines an invention that is clearly conveyed to those skilled in the art at the time the application was filed...If a claim is amended to include subject matter, limitations, or terminology not present in the application as filed, involving a departure from, addition to, or deletion from the disclosure of the application as filed, the examiner should conclude that the claimed subject matter is not described in that application. MPEP 2163.06 further notes “When an amendment is filed in reply to an objection or rejection based on 35 U.S.C. 112, first paragraph, a study of the entire application is often necessary to determine whether or not “new matter” is involved. *Applicant should therefore specifically point out the support for any amendments made to the disclosure.*

Maintained rejection(s) - Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-5,10-20 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9,13,17-22 of U.S. Patent No. 7355036 (referred to as ‘036) for the reasons set forth in the office action mailed 7/24/2008.

Response to Arguments

On p 12 third paragraph through p 13 of the remarks entered 12/22/2008, applicant argues the claims of ‘036 do not recite: (i) any triplet sensitization or labeling and (ii) that there is no limitation to use the fluorescent label (e.g. Y) with the photoactivatable group in order to improve the molar extinction coefficient in of ‘036.

(i) With regard to triplet sensitization it is noted that claim 1 of the present invention is set forth in the alternative: "...a photoactivatable protective group which is selected from [A] triplet-sensitized photoactivatable groups, [B] labeled photoactivatable groups and [C] triplet-sensitized and labeled photoactivatable groups." Here, the claims of '306 teach labeled photoactivatable groups, i.e. [B]. The NVOC and MeNPOC groups - at least - of '306 are also inherently triplet-sensitized photoactivatable groups, as evidenced by Guimil et al IV (WO 04/058392) in paragraph bridging pp 2-3.

(ii) By arguing point (ii) applicant has admitted that the claims '036 of include a fluorescent label (i.e. Y of '036), contradicting point (i).

Additionally in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., labeling in an effort to improve the molar extinction coefficient) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER M. GROSS whose telephone number is (571)272-4446. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached on 571 272 0951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher M Gross
Examiner
Art Unit 1639

cg

/ Christopher S. F. Low /
Supervisory Patent Examiner, Art Unit 1639